## THE AMENDMENTS

**In The Claims**

**1.** (Currently Amended) A system, associated with a network entity, for communicating proprietary control information over one or more backplane connections~~,~~ interconnecting ~~two or more entities~~one or more I/O blades with one or more management/switching (MSM) blades ~~comprising a network entity~~ without functioning as a user interface, with the one or more backplane connections coupled to the one or more I/O blades through one or more backplane-side MAC controllers, and coupled to the one or more MSM blades through one or more backplane-side MAC controllers, comprising:

first logic for storing proprietary control information, comprising control information recognized by the network entity but not generally recognized by other network entities, within a layer of a packet above the physical layer; and

second logic for communicating the packet, including the proprietary control information, over the one or more of the backplane connections;

wherein the proprietary control information as stored in the packet either replaces or appears in the packet to any third party devices that may happen to gain access as at least a portion of one or more standard packet fields;

wherein the first logic derives at least a portion of the control information from a packet header, and deletes the packet header prior to communication of the packet over the one or more backplane connections, and wherein a third logic re-creates at least a portion of the packet header from the control information after communication of the packet over the one or more backplane connections~~, wherein the derivations, deletions and re-creations of the packet header mitigate bandwidth limitations caused by the backplane connections and improve system throughput~~.

**2.** (Original) The system of claim 1 wherein the control information is stored in at least a portion of one or more fields inserted into the packet by the first logic.

**3.** (Original) The system of claim 1 wherein the first logic overwrites at least a portion of one or more pre-existing fields in the packet with the control information.

**4.** (Currently Amended) The system of claim 1 wherein the ~~two or more entities~~network entity comprises a switch, and the control information is proprietary to the switch.

**5.** (Original) The system of claim 4 wherein the switch has ingress and egress ports.

**6.** (Original) The system of claim 5 wherein the proprietary control information comprises an identifier of an ingress port of the switch at which the packet was received over a network.

**7.** (Original) The system of claim 5 wherein the proprietary control information comprises an identifier of an egress port of the switch at which the packet will or is expected to be transmitted over a network.

**8.** (Original) The system of claim 5 wherein the proprietary control information comprises an indicator of whether or not one or more predetermined fields were present in the packet upon receipt thereof at the switch.

**9.** (Original) The system of claim 8 wherein the one or more predetermined fields comprise a VLAN.

**10.** (Original) The system of claim 1 wherein the control information is stored in layer two or higher of the packet according to the OSI reference model.

**11.** (Original) The system of claim 10 wherein the control information is stored in layer two of the packet according to the OSI reference model.

**12.** (Original) The system of claim 11 wherein the control information is stored in the MAC sub-layer of the packet.

**13.** (Original) The system of claim 12 wherein the control information overwrites at least a portion of a VLAN stored in the MAC sub-layer of the packet.

**14.** (Original) The system of claim 12 wherein the control information overwrites at least a portion of source or destination addresses stored in the MAC sub-layer of the packet.

**15.** (Original) The system of claim 9 wherein the VLAN comprises op code and tag portions, and the first logic overwrites the op code portion of the VLAN with the control information.

**16.** (Original) The system of claim 15 wherein the control information comprises an identifier of the VLAN op code overwritten by the control information.

**17.** (Original) The system of claim 9 wherein the VLAN is the outer VLAN of a plurality of nested VLANs.

**18.** (Original) The system of claim 1 wherein the control information comprises quality of service information for the packet.

**19.** (Previously Presented) The system of claim 18 wherein the quality of service information comprises an identifier of a queue for buffering the packet and priority for the queue is selected based upon the quality of service information of the packet.

**20.** (Original) The system of claim 1 wherein the control information comprises an indicator that the packet is a candidate for dropping.

**21.** (Previously Presented) The system of claim 1 wherein by dropping a portion of the packet, the control information is added to the packet and the packet is communicated in-band over the one or more backplane connections without requiring additional clock cycles.

**22.** (Canceled)

**23.** (Canceled)

**24.** (Currently Amended) A method, performed in, by or for a network entity, of communicating proprietary control information over one or more backplane connections~~,~~ interconnecting ~~two or more entities comprising a network entity~~ one or more I/O blades with one or more management/switching (MSM) blades without functioning as a user interface, with the one or more backplane connections coupled to the one or more I/O blades through one or more backplane-side MAC controllers, and coupled to the one or more MSM blades through one or more backplane-side MAC controllers, comprising:

storing proprietary control information, comprising control information recognized by the network entity but not generally recognized by other network entities, in a layer of a packet above the physical layer; and

communicating the packet, including the proprietary control information, over the one or more of the backplane connections,

wherein the proprietary control information as stored in the packet either replaces or appears in the packet to one or more any third party devices that may happen to gain access as at least a portion of one or more standard packet fields;

wherein at least a portion of the control information is derived from a packet header, and is deleted from the packet header prior to communication of the packet over the one or more backplane connections, and wherein at least a portion of the packet header from the control information is re-created after communication of the packet over the one or more backplane connections~~, wherein the derivations, deletions and re-creations of the packet header mitigate bandwidth limitations caused by the backplane connections and improve system throughput~~.

**25.** (Original) The method of claim 24 further comprising storing the control information in at least a portion of one or more fields inserted into the packet to accommodate the control information.

**26.** (Original) The method of claim 24 further comprising overwriting at least a portion of one or more pre-existing fields in the packet with the control information.

**27.** (Currently Amended) The method of claim 24 wherein the ~~two or more entities~~network entity comprises a switch, and the control information is proprietary to the switch.

**28.** (Original) The method of claim 27 wherein the switch has ingress and egress ports.

**29.** (Original) The method of claim 28 wherein the proprietary control information comprises an identifier of an ingress port of the switch at which the packet was received over a network.

**30.** (Original) The method of claim 28 wherein the proprietary control information comprises an identifier of an egress port of the switch at which the packet will or is expected to be transmitted over a network.

**31.** (Original) The method of claim 28 wherein the proprietary control information comprises an indicator of whether or not one or more predetermined fields were present in the packet upon receipt thereof at the switch.

**32.** (Original) The method of claim 31 wherein the one or more predetermined fields comprise a VLAN.

**33.** (Original) The method of claim 29 wherein the proprietary control information comprises an indicator of a state of the ingress port of the switch at which the packet was received.

**34.** (Original) The method of claim 24 wherein the control information is stored in layer two or higher of the packet according to the OSI reference model.

**35.** (Original) The method of claim 34 wherein the control information is stored in layer two of the packet according to the OSI reference model.

**36.** (Original) The method of claim 35 wherein the control information is stored in the MAC sub-layer of the packet.

**37.** (Original) The method of claim 36 wherein the control information overwrites at least a portion of one or more fields stored in the MAC sub-layer of the packet.

**38.** (Original) The method of claim 37 wherein the one or more fields comprise a VLAN.

**39.** (Previously presented) The method of claim 37 wherein the one or more fields comprise source or destinations addresses.

**40.** (Original) The method of claim 38 wherein the VLAN comprises op code and tag portions, and the control information overwrites the op code portion of the VLAN.

**41.** (Original) The method of claim 40 wherein the control information comprises an identifier of the VLAN op code overwritten by the control information.

**42.** (Original) The method of claim 38 wherein the VLAN comprises the outer VLAN of a plurality of nested VLANs.

**43.** (Original) The method of claim 24 wherein the control information comprises quality of service information for the packet.

**44.** (Previously Presented) The method of claim 43 wherein the quality of service information comprises an identifier of a queue for buffering the packet and priority for the queue is selected based upon the quality of service information of the packet.

**45.** (Original) The method of claim 24 wherein the control information comprises an indicator that the packet is a candidate for dropping.

**46.** (Previously Presented) The method of claim 24 wherein by dropping a portion of the packet, the control information is added to the packet and the packet is communicated in-band over the one or more backplane connections without requiring additional clock cycles.

**47.** (Canceled)

**48.** (Canceled)

**49.** (Original) The system of claim 5 wherein the switch is a first switch, and the proprietary control information comprises an identifier of an ingress port of a second switch coupled to the first switch at which the packet was received over a network.

**50.** (Original) The method of claim 28 wherein the switch is a first switch, and the proprietary control information comprises an identifier of an ingress port of a second switch coupled to the first switch at which the packet was received over a network.

**51.** (Previously Presented) The system of claim 1 wherein the third logic for maintaining a mode bit having first and second states, wherein the first logic is configured to add one or more fields to the packet layer to accommodate the control information if the mode bit is

in the first state, and overwrite at least a portion of one or more pre-existing fields in the packet layer with the control information if the mode bit is in the second state.

**52.** (Original) The method of claim 24 further comprising:

maintaining a mode bit having first and second states;

adding one or more fields to the packet layer to accommodate the control information if the mode bit is in the first state; and

overwriting at least a portion of one or more pre-existing fields in the packet layer with the control information if the mode bit is in the second state.

**53.** (Currently Amended) A system, associated with a network entity, for performing load balancing over a plurality of backplane connections~~,~~ interconnecting ~~two or more entities comprising a network entity~~one or more I/O blades with one or more management/switching (MSM) blades without functioning as a user interface, with the one or more backplane connections coupled to the one or more I/O blades through one or more backplane-side MAC controllers, and coupled to the one or more MSM blades through one or more backplane-side MAC controllers, the system comprising:

first logic for receiving a packet at ~~a first entity~~any one of the one or more I/O blades or one or more MSM blades, mapping control information for the packet into one or more identifiers of at least one of the ~~one or more~~ plurality of backplane connections ~~coupling the first entity to a second entity, the first and second entities comprising a network entity~~, wherein the mapping occurs through a data structure configured to achieve a desired load balancing of packets over the plurality of backplane connections; and

second logic for communicating the packet over the at least one of the ~~one or more~~ plurality of backplane connections identified by the one or more identifiers;

wherein quality of service information is used to identify a queue into which the packet is stored before transmission over the ~~one or more~~ at least one of the plurality of backplane connections and priority for the queue is selected based upon the quality of service information of the packet.

**54.** (Currently Amended) The system of claim 53 wherein the ~~two or more entities~~ network entity comprises a switch, and the control information is an identifier of an ingress port at which the packet was received over a network, or an egress port at which the packet will or is expected to be transmitted over a network.

**55.** (Previously Presented) The system of claim 54 wherein the first logic comprises a lookup table ("LUT") for maintaining an association between ingress or egress ports, and egress ports associated with the backplane connections, and the first logic maps a particular ingress or egress ports into one or more backplane-associated egress ports through an access to the LUT.

**56.** (Original) The system of claim 55 wherein the association is programmed into the LUT.

**57.** (Original) The system of claim 56 wherein the association is pre-determined to achieve a desired load balancing of packets over the plurality of backplane connections.

**58.** (Original) The system of claim 53 wherein the two or more entities are each ASICs.

**59.** (Currently Amended) A method, performed in, by or for a network entity, of performing load balancing over a plurality of backplane connections~~,~~ interconnecting ~~two or more entities comprising a network entity~~one ore more I/O blades with one or more management/switching (MSM) blades without functioning as a user interface, with the plurality of backplane connections coupled to the one or more I/O blades through one or more backplane-side MAC controllers, and coupled to the one or more MSM blades through one or more backplane-side MAC controllers, the method comprising:

receiving the packet at ~~a first entity coupled to a second entity through the one or more backplane connections, the first and second entities comprising a network entity~~ any one of the one or more I/O blades or one or more MSM blades;

mapping control information for a packet into one or more identifiers of at least one of the ~~one or more~~ plurality of backplane connections through a data structure configured to achieve a desired load balancing of packets over the ~~one or more~~ plurality of backplane connections; and

communicating the packet over the at least one of the ~~one or more~~ plurality of backplane connections identified by the one or more identifiers;

wherein quality of service information is used to identify a queue into which the packet is stored before transmission over the ~~one or more~~ at least one of the plurality of backplane connections and priority for the queue is selected based upon the quality of service information of the packet.

**60.** (Currently Amended) The method of claim 59 wherein the ~~two or more entities~~ network entity comprises a switch, and the control information comprises an identifier of an ingress port at which the packet was received over a network, or an egress port at which the packet will or is expected to be transmitted over a network.

**61.** (Previously Presented) The method of claim 60 further comprising using a lookup table ("LUT") to maintain an association between ingress or egress ports and egress ports associated the backplane connections, and mapping an ingress or egress port into one or more of the backplane-associated egress ports through an access to the LUT.

**62.** (Original) The method of claim 61 further comprising programming the association into the LUT.

**63.** (Original) The method of claim 62 wherein the association is pre-determined to achieve a desired load balancing of packets over the plurality of backplane connections.

**64.** (Currently Amended) The method of claim 59 wherein the ~~two or more entities are each~~ network entity comprises one or more application specific integrated circuits (ASICs).

**65.** (Currently Amended) A system for extending the number of ports of a switch in a network comprising:

a first switch coupled to a second switch and the first switch having a greater number n of network-side ports than the number m of network-side ports ~~m~~ of the second switch;

first logic associated with the first switch for determining if a packet received at a port of the first switch is an ingress packet or an egress packet, and, if the packet is an ingress packet, storing in a layer of the packet above the physical layer an identifier of ~~a~~ the port of the first switch at which the packet was received, and communicating the packet from the first switch to the second switch, and, if the packet is an egress packet, retrieving from a layer of the packet above the physical layer an identifier of a port of the first switch at which the packet is to be transmitted, and transmitting the packet over the network from the identified port of the first switch; and

second logic ~~for communicating the packet between the first and second switches~~ associated with the second switch for determining if a packet received at a port of the second switch is an ingress packet or an egress packet, and, if the packet is an egress packet, storing in a layer of the packet above the physical layer an identifier of a port of the first switch from which the packet is to be transmitted over the network, and communicating the packet from the second switch to the first switch, and, if the packet is an ingress packet, retrieving from a layer of the packet above the physical layer an identifier of a port of the first switch at which the packet was received over the network, copying or inserting the identifier into a packet header for or data element of the packet, and performing additional processing of the packet,

wherein the second switch appears to the network to have n network-side ports rather than m network-side ports.

**66.** (Currently Amended) The system of claim 65 wherein the first switch has ingress and egress ports, ~~the port is~~ and, when an ingress packet is received at an ingress port of the first switch, the first logic stores an identifier of the ingress port in a layer of the packet above the physical layer, and thereafter communicates the packet from the first switch to the second switch ~~at which the packet was received over a network, and the second logic communicates the packet from the first switch to the second switch~~.

**67.** (Currently Amended) The system of claim 65 wherein the first switch has ingress and egress ports, and, when an egress packet is received at the second switch, the second logic stores an identifier ~~port is~~ of an egress port of the first switch at which the packet will or is expected to be transmitted over a network, and ~~the second logic~~ thereafter communicates the packet from the second switch to the first switch.

**68.** (Currently Amended) The system of claim 65 wherein the first logic, when an ingress packet is received at a port of the first switch, stores an ~~the port~~ identifier ~~is stored~~ of the port in layer two or higher of the packet according to the OSI reference model.

**69.** (Currently Amended) The system of claim 68 wherein the ~~port~~ identifier is stored in layer two of the packet according to the OSI reference model.

**70.** (Currently Amended) The system of claim 69 wherein the ~~port~~ identifier is stored in the MAC sub-layer of the packet.

**71.** (Currently Amended) The system of claim 70 wherein the ~~port~~ identifier is stored in the packet in the form of one or more standard fields.

**72.** (Currently Amended) The system of claim 70 wherein the ~~port~~ identifier is stored in the packet as a VLAN.

**73.** (Currently Amended) A method of extending the number of ports of a switch in a network comprising:

providing a first switch coupled to a second switch and the first switch having a greater number n of network-side ports than the number m of network-side ports ~~m~~ of the second switch;

in, by or for the first switch, when a packet is received at the first switch, determining if the packet is an ingress packet or an egress packet, and, if an ingress packet, storing in a layer of the packet above the physical layer an identifier of a port of the first switch at which the packet

was received, and communicating the packet from the first switch to the second switch, and, if the packet is an egress packet, retrieving from a layer of the packet above the physical layer an identifier of a port of the first switch from which the packet is to be transmitted over the network, and transmitting the packet over the network from that port; and

~~communicating the packet between the first and second switches,~~

in, by or for the second switch, when a packet is received at the second switch, determining if the packet is an ingress packet or an egress packet, and, if an egress packet, storing in a layer of the packet above the physical layer an identifier of a port of the first switch from which the packet is to be transmitted over the network, and communicating the packet from the second switch to the first switch, and, if the packet is an ingress packet, retrieving from a layer of the packet above the physical layer an identifier of a port of the first switch at which the packet was received from the network, copying or inserting the identifier into a header for or data element of the packet, and performing additional processing of the packet,

wherein the second switch appears to the network to have n network-side ports rather than m network-side ports.

**74.** (Currently Amended) The method of claim 73 wherein the first switch has ingress and egress ports, and, when an ingress packet is received at an ingress port of the first switch, an identifier of the ingress port is stored in a layer of the packet above the physical layer, and the packet is thereafter ~~port is an ingress port of the first switch at which the packet was received over a network, and the packet is~~ communicated from the first switch to the second switch.

**75.** (Currently Amended) The method of claim 73 wherein the first switch has ingress and egress ports, and, when an egress packet is received at the second switch, an identifier of an egress port of the first switch from which the packet is to be transmitted over the network is inserted in a layer of the packet over the physical layer, and the packet thereafter ~~port is an egress port of the first switch at which the packet will or is expected to be transmitted over a network, and the packet is~~ communicated from the second switch to the first switch.

**76.** (Currently Amended) The method of claim 73 wherein, when an ingress packet is received at the first switch, ~~the port~~ an identifier of the port of the first switch at which the packet was received is stored in layer two or higher of the packet according to the OSI reference model.

**77.** (Currently Amended) The method of claim 76 wherein the ~~port~~ identifier is stored in layer two of the packet according to the OSI reference model.

**78.** (Currently Amended) The method of claim 77 wherein the ~~port~~ identifier is stored in the MAC sub-layer of the packet.

**79.** (Currently Amended) The method of claim 78 wherein the ~~port~~ identifier is stored in the packet in the form of one or more standard fields.

**80.** (Currently Amended) The method of claim 79 wherein the ~~port~~ identifier is stored in the packet in the form of a VLAN.

**81.** (Currently Amended) A system, associated with a network entity, for communicating proprietary control information over one or more backplane connections~~,~~ interconnecting ~~two or more entities comprising a network entity~~ one or more I/O blades and one or more management/switching (MSM) blades without functioning as a user interface, with the one or more backplane connections coupled to the one or more I/O blades through one or more backplane-side MAC controllers, and coupled to the one or more MSM blades through one or more back-plane-side MAC controllers, comprising:

first means for mapping proprietary control information, comprising control information not generally recognized by network entities other than the network entity, for a packet into one or more identifiers of one or more of the ~~plurality of~~ one or more backplane connections;

second means for storing the proprietary control information in a layer of the packet above the physical layer, wherein the proprietary control information as stored in the packet either replaces or appears in the packet to one or more other network entities as at least a portion of one or more standard packet fields; and

third means for communicating the packet, including the proprietary control information, over the identified one or more backplane connections;

wherein the first means derives at least a portion of the control information from a packet header, and deletes the packet header prior to communication of the packet over the one or more backplane connections, and wherein a second means re-creates at least a portion of the packet header from the control information after communication of the packet over the one or more backplane connections~~, wherein the derivations, deletions and re-creations of the packet header mitigate bandwidth limitations caused by the backplane connections and improve system throughput~~.

**82.** (Currently Amended) The system of claim 81 wherein the ~~two or more entities~~network entity comprise a switch, and the system further comprises means for extending the number of ports of the switch.

**83.** (Currently Amended) A method, performed in, by or for a network entity, of communicating proprietary control information over one or more backplane connections~~,~~ interconnecting ~~two or more entities comprising a network entity~~ one or more I/O blades with one or more management/switching (MSM) blades without functioning as a user interface, with the one or more backplane connections coupled to the one or more I/O blades through one or more backplane-side MAC controllers, and coupled to the one or more MSM blades through one or more backplane-side MAC controllers, comprising:

a step for mapping proprietary control information, comprising control information recognized by the network entity but not generally recognized by other network entities, for a packet into one or more identifiers of at least one of the one or more backplane connections;

a step for storing the proprietary control information in a layer of the packet above the physical layer, wherein the proprietary control information as stored in the packet either replaces or appears in the packet to one or more other network entities as at least a portion of one or more standard packet fields; and

a step for communicating the packet, including the proprietary control information, over the at least one backplane connection~~s~~ identified by the one or more identifiers;

wherein at least a portion of the control information is derived from a packet header, and is deleted from the packet header prior to communication of the packet over the one or more backplane connections, and wherein at least a portion of the packet header from the control information is re-created after communication of the packet over the one or more backplane connections~~, wherein the derivations, deletions and re-creations of the packet header mitigate bandwidth limitations caused by the backplane connections and improve system throughput~~.

**84.** (Currently Amended) The method of claim 83 wherein the ~~two or more entities~~ network entity comprise a switch, and the method further comprises a step for extending the number of ports of the switch.

**85.** (Currently Amended) The system of claim 1, ~~further comprising one or more I/O blades interconnected with one or more management/switching blades;~~

wherein ~~each~~ at least one of the one or more I/O blades ~~is coupled to a network and the I/O blade~~ comprises one or more ~~first~~ network-side MAC controllers ~~which in turn are~~ coupled to ~~a first~~ switch fabric~~, which~~ that in turn ~~are each~~ are coupled to ~~a first~~ one or more backplane-side MAC controllers; and

wherein ~~the management/switching~~ at least one of the one or more MSM blades ~~are coupled to the first backplane MAC controller, and the management/switching blade~~ comprises one or more ~~second~~ backplane MAC controllers ~~which are each~~ coupled to ~~a~~ one or more packet filtering and control engines~~, which~~ that in turn ~~are each~~ are coupled to ~~a second~~ switch fabric~~, which~~ that in turn is coupled to a microcontroller.

**86.** (Currently Amended) The system of claim 85 wherein the ~~first~~ switching fabric for the at least one I/O blade stores ~~the~~ a packet in a queue ~~associated with an egress port represented by a port tag indicator value for the packet, and wherein the queue is~~ selected based upon ~~the~~ quality of service information for the packet.

**87.** (Currently Amended) The ~~method of claim 73~~system of claim 65,

wherein, when a packet is received at the first switch, the first logic:~~further comprising the first switch is a third party switch and the second switch is a proprietary switch;~~

~~wherein the process at a third party switch comprise the steps of:~~

~~receiving the packet at the third party switch;~~

determin~~ing~~es ~~if the~~ whether the packet is an ingress packet or an egress packet; ~~and~~

~~processing the packet;~~

~~wherein if~~ when the packet is an ingress packet, ~~the switch~~ the first logic inserts a VLAN into the MAC sub-layer of the packet, ~~and~~ stores in the VLAN an identifier of ~~the ingress~~ an ingress port of the first switch at which the packet was received ~~by the third party switch~~, ~~wherein the packet is transferred to the proprietary switch~~, and communicates the packet to the second switch; and

~~wherein if~~ when the packet is an egress packet, the first logic retrieves from a VLAN in the MAC sub-layer of the packet an identifier of ~~the~~ an egress port of the first switch from which the packet is to be transmitted over the network, and transmits the packet from the egress port of the first switch over the network~~is retrieved from the VLAN, a decision on deletion of the VLAN egress port identifier is made and the packet is transmitted over the network from the designated egress port of the third party switch~~;

wherein, when a packet is received at the second switch, the second logic:~~the processing at a proprietary switch comprising the steps of:~~

~~receiving the packet at the proprietary switch;~~

determines~~ing if the~~ whether the packet is an ingress packet or an egress packet; ~~and~~

~~processing the packet;~~

~~wherein if~~ when the packet is an ingress packet, the second logic retrieves from a VLAN in the MAC sub-layer of the packet an identifier of ~~the~~ an ingress port of the ~~third party~~ first switch ~~port based VLAN is obtained~~at which the packet was received over the network, copies or inserts the identifier ~~is copied~~ into a ~~packet~~ header for or data element of the packet, ~~a decision on deletion of the port based VLAN indicator is made~~, and performs additional processing of the packet ~~is preformed, and the packet is transferred to~~

~~the MSM blade in the proprietary switch over one or more backplanes~~or transmits the packet to a management/switching (MSM) blade; and

~~wherein if~~ when the packet is an egress packet, the second logic inserts a VLAN into the MAC sub-layer of the packet, stores in the VLAN an identifier of ~~the~~ an egress port of the first switch from which the packet is to be transmitted over the network, ~~is obtained from the packet header, a VLAN is inserted into the MAC sub-layer of the packet, and an identifier of the egress port of the third party switch is stored in the VLAN,~~ and ~~the packet is transmitted to the third party switch~~communicates the packet to the first switch.

**88.** (Previously Presented) A system of claim 1, further comprising a fourth logic that masks the control information such that the control information appears as a standard packet field to a third party.

**89.** (New) The method of claim 73 further comprising:

when a packet is received at the first switch:

determining whether the packet is an ingress packet or an egress packet;

when the packet is an ingress packet, inserting a VLAN into the MAC sub-layer of the packet, storing in the VLAN an identifier of an ingress port of the first switch at which the packet was received, and communicating the packet to the second switch; and

when the packet is an egress packet, retrieving from a VLAN in the MAC sub-layer of the packet an identifier of an egress port of the first switch from which the packet is to be transmitted over the network, and transmitting the packet from the egress port of the first switch over the network;

when a packet is received at the second switch:

determining whether the packet is an ingress packet or an egress packet;

when the packet is an ingress packet, retrieving from a VLAN in the MAC sub-layer of the packet an identifier of an ingress port of the first switch at which the packet was received over the network, copying or inserting the identifier into a header for or data

element of the packet, and performing additional processing of the packet or transmitting the packet to a management/switching (MSM) blade; and

when the packet is an egress packet, inserting a VLAN into the MAC sub-layer of the packet, storing in the VLAN an identifier of an egress port of the first switch from which the packet is to be transmitted over the network, and communicating the packet to the first switch.

**90.** (New) The system of claim 87 wherein the first logic, when an egress packet is received at the first switch, deletes the VLAN containing the egress port identifier from the packet before transmitting the packet over the network.

**91.** (New) The system of claim 87 wherein the second logic, when an ingress packet is received at the second switch, deletes the VLAN containing the ingress port identifier from the packet after copying or inserting the identifier into a header for the packet.

**92.** (New) The method of claim 89 wherein, when an egress packet is received at the first switch, the VLAN containing the egress port identifier is deleted from the packet before transmitting the packet over the network.

**93.** (New) The method of claim 89 wherein, when an ingress packet is received at the second switch, the VLAN containing the ingress port identifier is deleted from the packet after the identifier is copied or inserted into a header for the packet.

**94.** (New) The system of claim 87 wherein the identifier is copied or inserted into a header pre-pended to the packet.

**95.** (New) The system of claim 87 wherein the identifier is copied or inserted into a data element within the MAC sub-layer of the packet.

**96.** (New) The method of claim 89 wherein the identifier is copied or inserted into a header pre-pended to the packet.

**97.** (New) The method of claim 89 wherein the identifier is copied or inserted into a data element within the MAC sub-layer of the packet.